

United States Department of the Interior



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December 11, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (November 18, 2012 - December 1, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period November 18, 2012 through December 1, 2012. Race designation was assigned using length-atdate criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

	Discharge volume (cfs) 1	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
Date				BY12 Winter	BY12 Spring	BY12 Fall ²	BY12 Late-Fall	BY12 RBT
11/18/2012	14,000	11.5	3.0	27,614 (42 – 82)	2,138 (31 – 41)	(0 - 0)	3,390 (84 – 145)	104 (89)
11/19/2012	12,100	11.4	7.3	159,812 (42 – 82)	11,383 (29 – 41)	152 (156)	11,838 (84 – 142)	911 (76 – 147)
11/20/2012	7,390	12.0	4.1	14,913 (43 – 76)	320 (32 – 42)	(0 - 0)	107 (86)	0(-)
11/21/2012	13,900	12.7	2.5	3,527 (43 – 71)	271 (31 – 40)	(0 - 0)	407 (98 – 118)	407 (69 – 78)
11/22/2012	15,500	12.1	57.4	48,309 (43 – 81)	10,058 (29 – 42)	(0 - 0)	7,380 (86 – 135)	0(-)
11/23/2012	8,990	11.6	_	_	_	_	_	_
11/24/2012	7,050	11.4	2.8	5,761 (44 – 84)	641 (29 – 43)	(0 - 0)	164 (96 – 141)	79 (81 – 103)
11/25/2012	6,370	11.6	1.6	4,549 (45 – 86)	137 (28 – 43)	(0 - 0)	408 (89 – 134)	66 (75 – 86)
11/26/2012	6,160	11.8	1.9	2,964 (44 – 80)	83 (32 – 43)	(0 - 0)	196 (98 – 128)	90 (85 – 158)
11/27/2012	6,080	11.5	1.6	2,505 (46 – 87)	158 (32 – 44)	(0 - 0)	316 (89 – 117)	27 (93)
11/28/2012	6,020	11.3	1.6	1,234 (45 – 82)	30 (31)	(0 - 0)	87 (93 – 106)	28 (96)
11/29/2012	6,800	11.8	_	_	_	_	_	_
11/30/2012	20,400	12.7	_	_	_	_	_	_
12/1/2012	27,600	12.8	_	_	_	_	_	_
Biweekly Total ³				322,950	29,660	177	28,930	2,121
Biweekly Lower 90% Confidence Interval				-883,404	-106,171	-4,852	-112,177	-27,548
Biweekly Upper 90% Confidence Interval				1,529,304	165,491	5,206	170,037	31,790
Brood Year Total				1,189,802	101,516	0	127,640	135,974
Brood year Lower 90% Confidence Interval				856,691	70,033	0	25,052	81,321
Brood year Upper 90% Confidence Interval				1,522,912	132,999	0	230,229	190,627

¹ Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd).

² Brood year 2012 began on 12/01/12 according to length-at-date criteria (Greene 1992); brood year 2011 total was estimated 6,037,878

³ Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

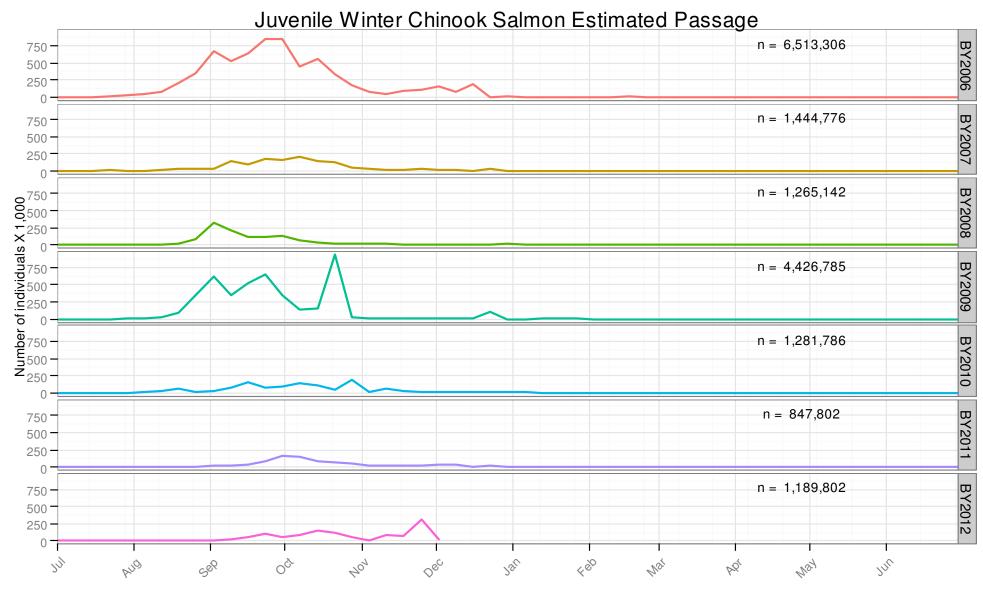


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2006 to present.

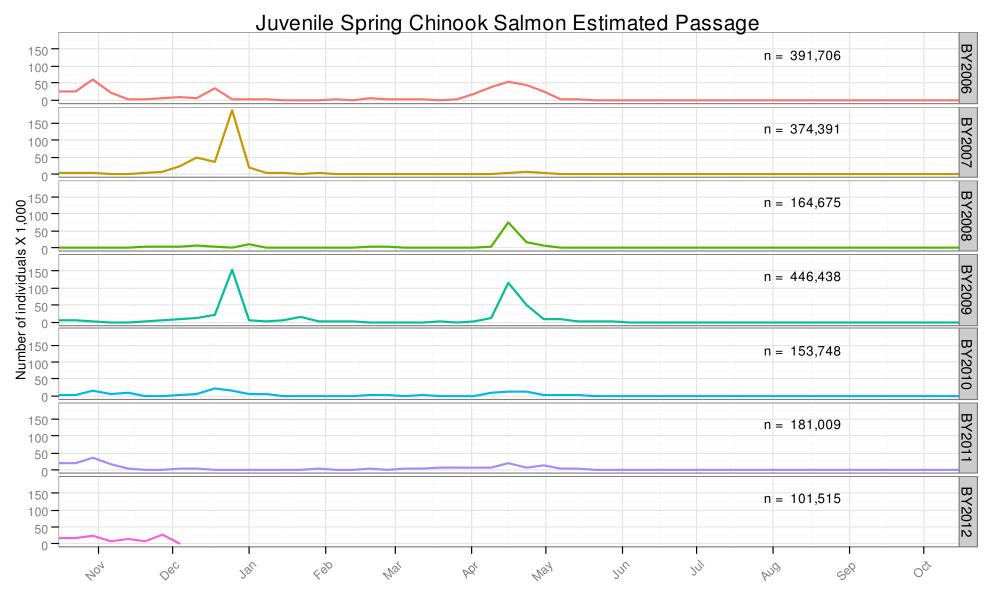


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2006 to present.

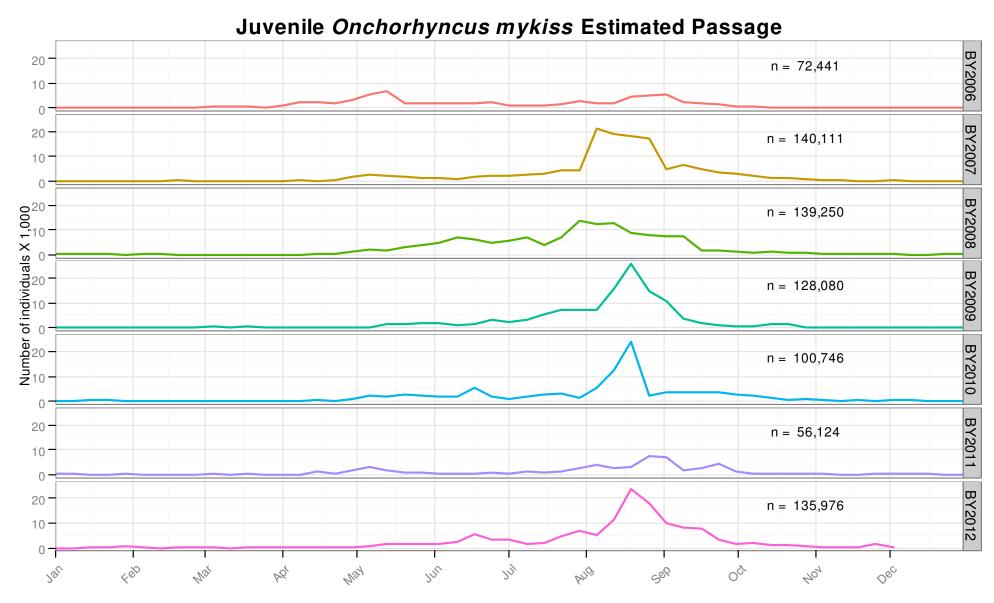


Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

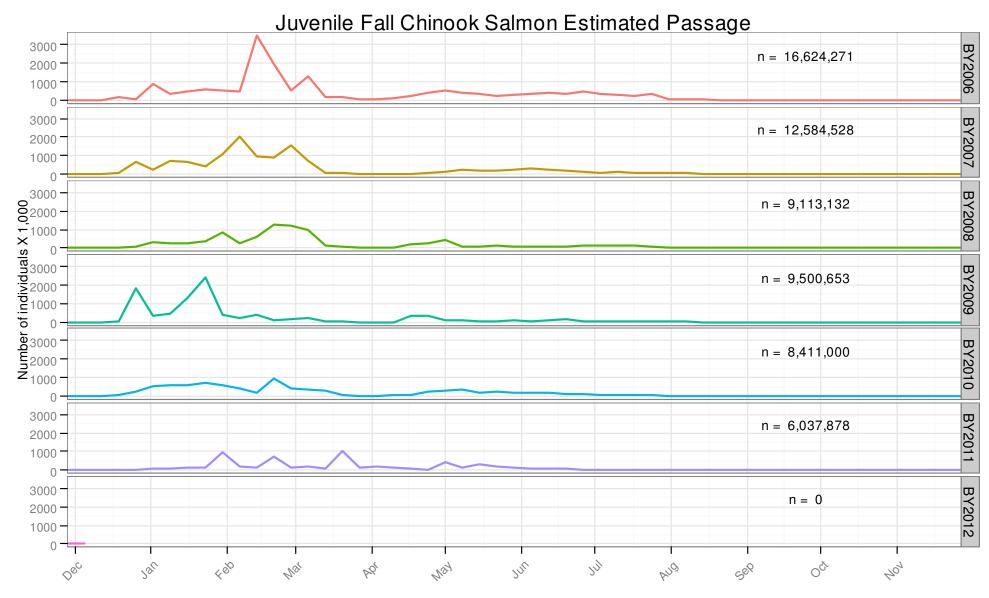


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2006 to present.

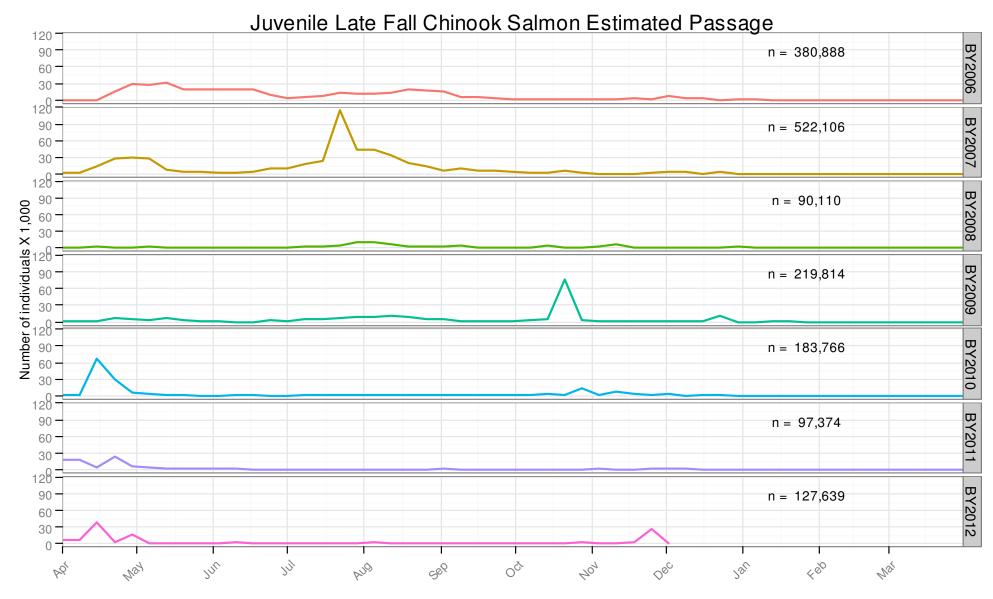


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present.

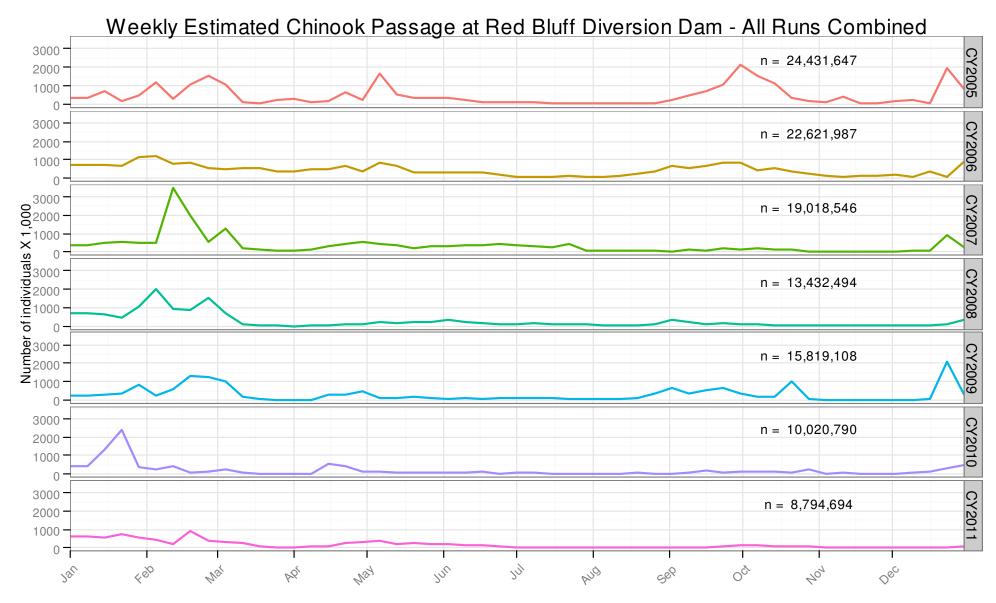


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to December 31 2011